

**REMARKS**

The Examiner is thanked for the due consideration given the application.

Upon entry of this amendment, claims 1-20 are pending in the application. This amendment amends claims 1 and 3, which find support in, e.g., Figure 1 of the application and paragraphs 0012 and 0038 of the published application.

No new matter is believed to be added to the application by this amendment.

Entry of this amendment under 37 CFR \$1.116 is respectfully requested because it places the application in condition for allowance. Alternately, entry is proper because this amendment reduces issues for appeal.

**Rejections Based on BECERRA et al.**

Claims 1-7 and 10-20 have been rejected under 35 USC \$102(e) as being anticipated by BECERRA et al. (U.S. Patent 7,270,907). Claims 8 and 9 have been rejected under 35 USC \$103(a) as being unpatentable over BECERRA et al. in view of PRASED et al. (U.S. Patent Publication 2003/0138679 A1) or BULLOCK et al. (U.S. Patent Publication 2003/0207158 A1) or DEVOS et al. (U.S. Patent Publication 2005/0079128 A1). These rejections are respectfully traversed.

The present invention pertains to a removably mountable fuel cartridge for a fuel cell that is illustrated, by way of

example, in Figures 1 and 2 of the application, which are reproduced below.

Fig. 1

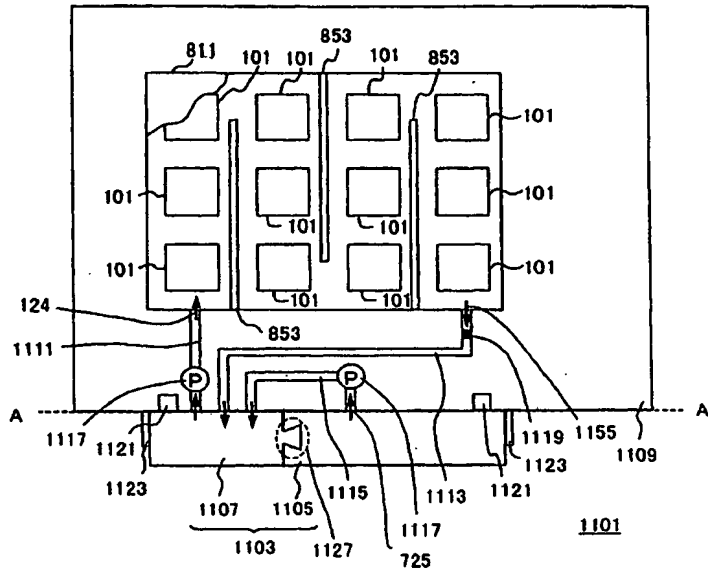
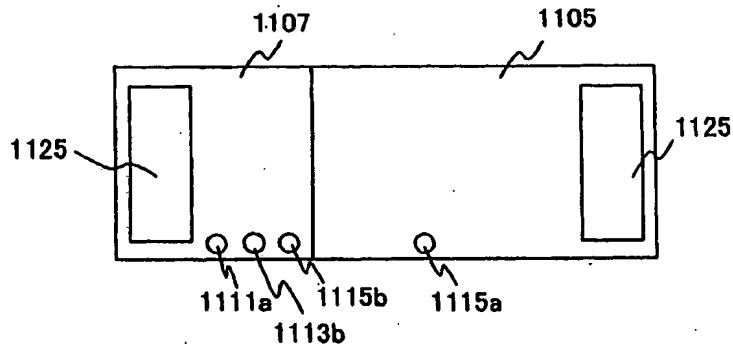


Fig. 2



Figures 1 and 2 of the application show a removably mountable fuel cartridge 1103 that includes a high-concentration fuel tank 1105 and a low-concentration fuel tank 1107. Fuel that has circulated through cell structures 101 is returned to low-concentration fuel tank 1107, to be mixed with high-concentration fuel and sent back to the cells. The low-concentration fuel tank 1107 thus serves as a mixing tank to regenerate fuel.

That is, the present invention supplies fuel to the second chamber of a cartridge, and then the fuel circulates in the second chamber of the cartridge and a fuel cell.

Instant claim 1 of the present invention recites: "a second chamber for retaining a second liquid fuel, said second liquid fuel being a low-concentration liquid fuel," and "said second chamber is provided with a fuel outlet port through which said second liquid fuel passes to said fuel cell body, and is provided with a fuel inlet port to which said first liquid fuel is introduced from said first chamber." Instant claim 1 of the present invention also recites: "said fuel cartridge is removably mountable to said fuel cell body."

BECERRA et al. pertain to a fuel container and delivery apparatus for a liquid feed fuel cell system. BECERRA et al. discloses three types of flow of fuel.

One type of flow is shown in Figure 11 of BECERRA et al., which is reproduced below.

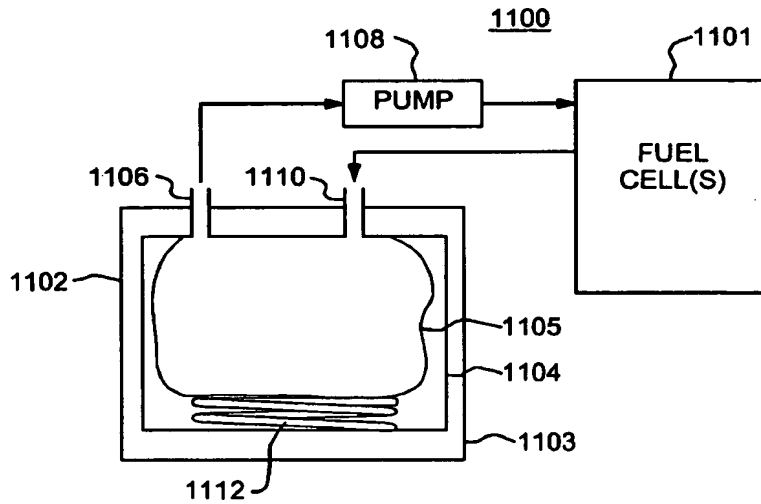


FIG. 11

Figure 11 of BECERRA et al. shows that fuel circulates in a cartridge and a fuel cell.

The Official Action refers to Figure 12 of BECERRA et al., which is reproduced below, which shows the second type of fuel flow.

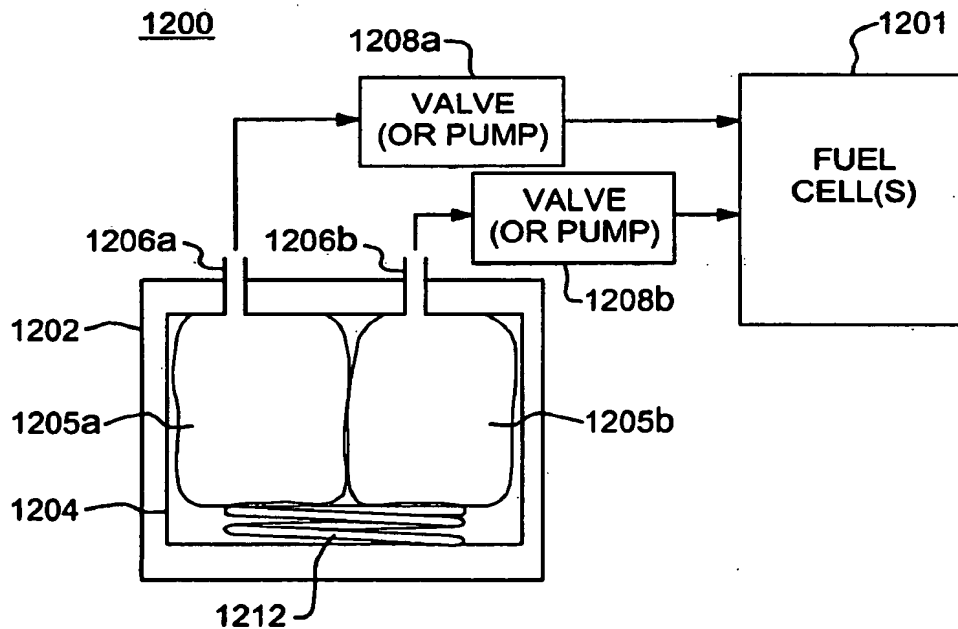


FIG. 12

Figure 12 of BECERRA et al. shows two kinds of fuel whose concentrations are different from each other.

That is, Figure 12 of BECERRA et al. shows a fuel cell 1201, and a container 1204 that encloses dual fuel bladders 1205a and 1205b. Column 9, lines 41-46 of BECERRA et al. states: "More specifically, a high methanol concentration fuel may be delivered from container 1205a, via fuel outlet 1206a, through an optional pump 1208a. A lower methanol concentration fuel may be delivered from container 1205b, via the fuel outlet 1206b, through an optional pump 1208b." Column 9, lines 46-48 of BECERRA et al. then states: "The fuel concentration can be controlled by switching between high and lower concentration fuels." Figure 12 of BECERRA et al. thus shows a technology where both low concentration fuel and high concentration fuel are fed directly to the fuel cell.

The third type of fuel circulation is shown in Figure 13 of BECERRA et al., which is reproduced below.

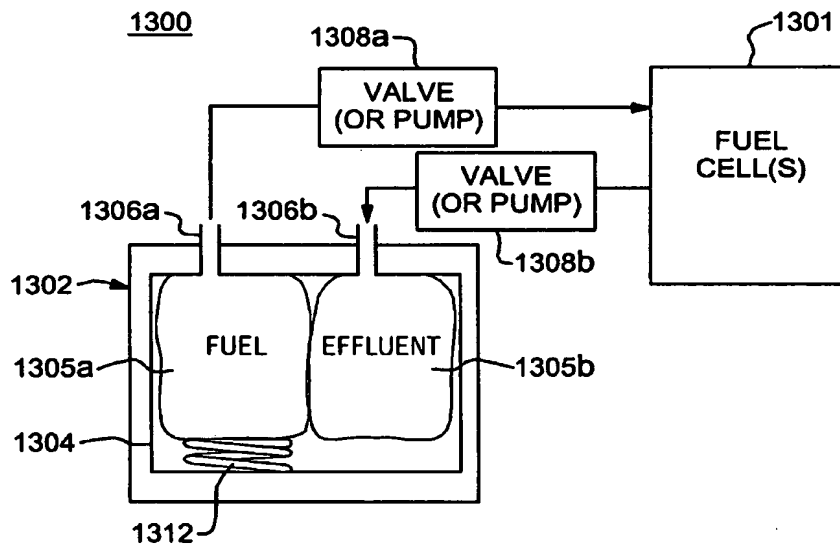


FIG. 13

Figure 13 of BECERRA et al. shows that fuel is supplied to fuel cell from a cartridge, and effluent is supplied to the cartridge from the fuel cell.

On the other hand, the present invention supplies fuel to the second chamber of a cartridge, and then the fuel circulates in the second chamber of the cartridge and a fuel cell, as is shown in Figure 1 of the application (reproduced above).

As a result, BECERRA et al. fail to anticipate claim 1 of the present invention. The other references applied to reject claims 8 and 9 fail to address the above-described deficiencies of BECERRA et al., and a *prima facie* case of unpatentability has thus not been made. Claims depending upon claim 1 are patentable for at least the above reasons.

**Conclusion**

The Examiner is thanked for considering the Information Disclosure Statement filed November 1, 2007 and for making an initialed PTO-1449 Form of record in the application.

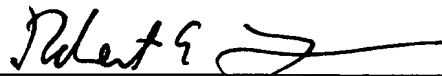
Prior art of record but not utilized is believed to be non-pertinent to the instant claims.

The rejections are believed to have been overcome, obviated or rendered moot and that no issues remain. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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